Listing of the Claims:

The following is a complete listing of all the claims in the application, with an indication of the status of each:

1. (Original) A binuclear, oxygen-bridged, bimetallic complex of the general formula I:

(I) $[(LM^1R^1)(Cp_2M^2R^2)](\mu\text{-}O)$

where:

M^1 = Al, Ge, Zr or Ti;

M^2 = Zr, Ti, or Hf;

Cp = cyclopentadienyl;

R^1, R^2 = H'; C(1-6) alkyl; halogen; aryl; $SiMe_3$; and alkaryl where aryl = $C_6H_{5-n}X_n$

X = halogen, C(1-6) alkyl, aryl NO_2, SO_3H, NR^3_2, where R^3 = C(1-6) alkyl or H and n = 0 to 5; and

L = a bidentate, doubly heteroatom-coordinated organochemical ligand which together with the metal M^1 forms a 5- or 6-membered ring.

2. (Currently amended) The binuclear, oxygen-bridged, bimetallic complex as claimed in claim 1, in which

R^1, R^2 = methyl, ethyl, i-propyl, t-butyl, halogen, phenyl, alkylphenyl, and $SiMe_3$, and

L is a bidentate, doubly nitrogen-coordinated organochemical ligand which, together with the metal M^1, forms the [[a]] 5- or 6-membered ring.

3. (Currently amended) The binuclear, oxygen-bridged, bimetallic complex as claimed in claim 1, ~~characterized in that it is a heterobimetallic complex, preferably on in which~~ wherein M^1 = Al ~~aluminum~~ and M^2 = Zr ~~zirconium, more preferably a complex of the formula $[(LA1Me][Cp_2Zr\ R^2)](-O)$, where R^2 is Me or Cl~~.

4-5. (Canceled)

6. (Currently amended) A process for preparing a binuclear, oxygen-bridged,

bimetallic complex of the general formula I:

(I) $[(LM^1R^1)(Cp_2M^2R^2)](\mu\text{-}O)$

where:

M^1 = Al, Ge, Zr or Ti;

M^2 = Zr, Ti, or Hf;

Cp = cyclopentadienyl;

R^1, R^2 = H'; C(1-6) alkyl; halogen; aryl; $SiMe_3$; and alkaryl where aryl = $C_6H_{5-n}X_n$

X = halogen, C(1-6) alkyl, aryl NO_2, SO_3H, NR^3_2, where R^3 = C(1-6) alkyl or H and n = 0 to 5; and

L = a bidentate, doubly heteroatom-coordinated organochemical ligand which together with the metal M^1 forms a 5- or 6-membered ring,

comprising the step of reacting ~~as claimed in claim 1 characterized in that~~ a precursor complex of the formula $LM^1R^1(OH)$ ~~is reacted~~ with a metallocene precursor complex[[,]] selected from $Cp_2M^2(R^2)_2$ or $Cp_2M^2MeR^2$ or Cp_2M^2HX'' where X'' is a halogen~~, where x = halogen, preferably in an inert solvent~~.

7. (Currently amended) A catalyst preparation for the polymerization of olefins which comprises

at least one complex ~~as claimed in claim 1~~ of the general formula I:

(I) $[(LM^1R^1)(Cp_2M^2R^2)](\mu\text{-}O)$

where:

M^1 = Al, Ge, Zr or Ti;

M^2 = Zr, Ti, or Hf;

Cp = cyclopentadienyl;

R^1, R^2 = H'; C(1-6) alkyl; halogen; aryl; $SiMe_3$; and alkaryl where aryl = $C_6H_{5-n}X_n$

X = halogen, C(1-6) alkyl, aryl NO_2, SO_3H, NR^3_2, where R^3 = C(1-6) alkyl or H and n = 0 to 5; and

L = a bidentate, doubly heteroatom-coordinated organochemical ligand which together with the metal M^1 forms a 5- or 6-membered ring, and

at least one cocatalyst.

8. (Currently amended) The catalyst preparation as claimed in claim 7, ~~characterized in that~~ wherein the at least one cocatalyst is an alkyl-aluminoxane~~;~~

~~preferably methalaluminoxane (MAO)~~.

9-11. (Canceled)

12. (New) The binuclear, oxygen-bridged bimetallic complex as claimed in claim 3 wherein R^2 is Me or Cl.

13. (New) The binuclear, oxygen-bridged, bimetallic complex as claimed in claim 1 wherein the ligand L is defined by formula II:

(II) R^b-N=X'$(R^a)_n$-HC=X'$(R^a)_n$-N-R^b

where X' = C or P; and

R^a, R^b = R^1, and n = 1 when X = C, and n = 2 when X = P.

14. (New) The binuclear, oxygen-bridged, bimetallic complex as claimed in claim 1 wherein the ligand L is defined by formula III:

(III) Ar-N=C(CH_3)-C(H)(CH_3)-N-Ar

where Ar is an aryl.

15. (New) The binuclear, oxygen-bridged, bimetallic complex as claimed in claim 14 where in Ar is 2, 6-i$Pr_2C_6H_3$ where iPr is isopropyl.

16. (New) The method of claim 6 wherein said reacting step is performed in an inert solvent.

17. (New) The catalyst preparation of claim 8 wherein said alkyl-aluminoxane is methylaluminoxane.

18. (New) A method of catalytically polymerizing polymers, comprising the steps of:

combining materials to be polymerized with a binuclear, oxygen-bridged, bimetallic complex of the general formula I:

(I) $[(LM^1R^1)(Cp_2M^2R^2)](\mu\text{-}O)$

where:

M^1 = Al, Ge, Zr or Ti;

M^2 = Zr, Ti, or Hf;

Cp = cyclopentadienyl;

R^1, R^2 = H'; C(1-6) alkyl; halogen; aryl; $SiMe_3$; and alkaryl where aryl = $C_6H_{5-n}X_n$

X = halogen, C(1-6) alkyl, aryl NO_2, SO_3H, NR^3_2, where R^3 = C(1-6) alkyl or H and n = 0 to 5; and

L = a bidentate, doubly heteroatom-coordinated organochemical ligand which together with the metal M^1 forms a 5- or 6-membered ring, and

polymerizing the materials using said binuclear, oxygen-bridged, bimetallic complex as a catalyst.

19. (New) The method of claim 18 wherein said combining step includes the step of adding an alkyl-aluminoxane, trialkyaluminum, or alkylhaloaluminum cocatalyst to said materials and said binuclear, oxygen-bridged, bimetallic complex.

20. (New) the method of claim 19 wherein said cocatalyst is methylaluminoxane.